ABSTRACT

A partial response is utilized to record information on a medium and then regenerate the

5   information from the medium. A regenerating system undergoes equalization including subjecting a regeneration signal from the medium to the convolution of

$(k-s \cdot D)$

10   (where D is one (1) bit delay operator, and k and s are positive integer).

Such convolution is performed in the regenerating system so that low-frequency band noises are reduced with an improved error rate. The

15   information is decoded from the equalized signal by use of maximum-likelihood detection.